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CASE REPORT

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Thoracolumbar hernia: a rare cause of back pain

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Abstract We report a case of a hernia through the thoracolumbar fascia in a young adult male who presented with pain and swelling in the thoracolumbar region. Surgical repair of the defect was performed in the superficial layer of the thoracolumbar fascia and, 18 months following surgery, he remained asymptomatic. The purpose of this report is to make clinicians aware of a thoracolumbar hernia as a rare cause of back pain.

Key words Back pain · Hernia · Thoracolumbar fascia

Introduction

The superior lumbar (Grainfield-Layshaft) triangle is an inverted triangle that is bounded by the 12th rib superiorly, internal oblique anteriorly and erector spinae muscle posteriorly. The floor of this space is formed by the thoracolumbar fascia and constitutes the weakest part of the posterior abdominal wall [2].

A lumbar hernia occurs most often in the superior lumbar triangle usually due to non-traumatic or a congenital cause and, less commonly, due to trauma [2, 6]. The patient reported here presented with a herniation through the superfical layer of the thoracolumbar fascia due to trauma.

Case report

A 33-year-old policeman presented with an 18-month history of thoracolumbar pain. He had developed pain in the interscapular and lower thoracic regions whilst lifting a gate. An examination by his general practitioner following this incident revealed a mild thoracolumbar scoliosis. The area to the left of the thoracolumbar junction was tender on palpation but no swelling was noted. Over a period of 4 months, the patient noticed a swelling at the site of the tenderness that gradually increased in size.

When seen in our outpatient clinic, the swelling was 4 × 4 cm in diameter and found to be more prominent on extension of the spine, tending to disappear during flexion (Fig. 1).

An MRI scan of the thoracolumbar spine was inconclusive, but did reveal atrophy of the erector spinae muscle at the thoracolumbar region on the left side (Fig. 2). This was the only positive radiological finding in the region of the suspected hernia.

Conservative treatment failed to relieve the patient's symptoms and, in view of the severity of his pain, surgical intervention was deemed necessary. The swelling was approached via a para-sagittal incision on the left side. A 2.5-cm horizontal defect in the thoracolumbar fascia was observed at the region of T12/L1, lying 3.8 cm from the midline on the left. It was also noted that the thoracolumbar fascia had been weakened and the latissimus dorsi was visible through the defect (Fig. 3).

Double breasting of the defect was carried out using non-absorbable sutures. Eighteen months after surgery he remained asymptomatic and had suffered no further episodes of back pain.

Discussion

The incidence of lumbar hernia is very low [5]. Less than 300 cases have been reported in the literature. Most of these were due to either a non-traumatic or congenital cause. The remainder were due to trauma [6]. The natural history of a lumbar hernia is that it gradually increases in size over a period of time and can result in significant morbidity, ranging from chronic back pain to bowel incarceration [6].

Several reports do not recognise a lumbar hernia as a cause of back pain [1, 3]. Diagnosis of this condition is

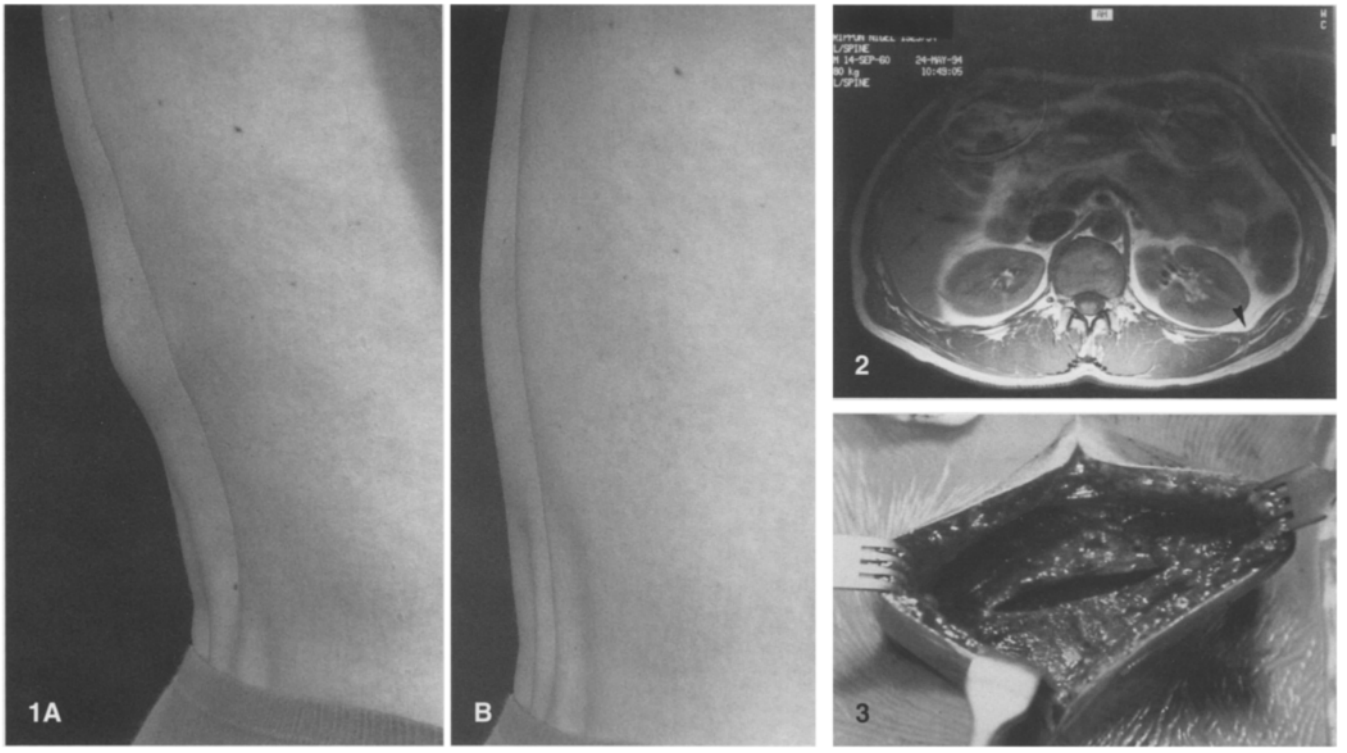

Fig. 1 A, B Photographs showing the hernia through the thoracolumbar fascia during **A** flexion and **B** extension

Fig. 2 Axial MRI view at the region of the thoracolumbar spine showing atrophy of the erector spinae muscle on the left side as compared to the right

Fig. 3 Intraoperative picture showing the defect in the thoracolumbar fascia

difficult, especially in the absence of a swelling. Although MRI of the spine can exclude other causes of back pain in the thoracolumbar region, it fails to image the hernia unless the spine is moved into a certain position. It may, however, reveal indirect signs of a hernia in the suspicious region of the spine, e. g. a decrease of the muscle bulk of the erector spinae muscle, as seen in this case.

In cases where a thoracolumbar hernia is suspected, we recommend that clinical examination in flexion/extension should be combined with radiological studies and surgical exploration.

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